

ILLINOIS COMMERCE COMMISSION

DOCKET NO. _____

DIRECT TESTIMONY

OF

DAVID W. DEWEESE

Submitted on Behalf

of

CENTRAL ILLINOIS PUBLIC SERVICE COMPANY

d/b/a AmerenCIPS

September 27, 2001

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Q1. Please state your name, business address, and position with Ameren Services Company?

A1. My name is David W. DeWeese. My business address is 1901 Chouteau Avenue, St. Louis, Missouri, 63103. I am currently the Supervising engineer of Transmission Line Design for Ameren Services Company ("Ameren Services"). Ameren Services provides various technical and administrative support services to Central Illinois Public Service Company, d/b/a AmerenCIPS and to other Ameren affiliate companies including Union Electric Company, d/b/a AmerenUE.

1 **Q2. How long have you been employed by Ameren Services or one of its affiliate**
2 **companies?**

3 A2. I have been employed by Ameren Services or one of its affiliate companies for
4 approximately 19 years, 8 months. I have been employed at Ameren Services since
5 January of 1998, and prior to that time I was employed at Union Electric Company.

6 **Q3. How long have you held your present position at Ameren Services?**

7 A3. I have been in my present position for 9 months.

8 **Q4. Briefly describe your educational background and related experience for the**
9 **position you now hold?**

10 A4. I have a Bachelor of Science degree in Civil Engineering from the University of
11 Missouri – Rolla and a Masters degree in Business Administration from the
12 University of Missouri – St. Louis. I have over 19 years of engineering experience,
13 the last 14 years as a transmission line engineer for Ameren Services and
14 AmerenUE. I also am a registered Professional Engineer in the State of Missouri.

15 **Q5. What is the purpose of your testimony?**

16 A5. The purpose of my testimony is to support the Petition filed by AmerenCIPS for a
17 Certificate of Convenience and Necessity by providing information regarding the
18 design and construction of the proposed 138 kilovolt ("kV"), three phase,
19 multigrounded, transmission line to be constructed by AmerenCIPS in Ford County,
20 Illinois.

1 **Q6. Please describe the route of the proposed new line.**

2 A6. The proposed new line will connect the AmerenCIPS Paxton East Substation to the
3 AmerenCIPS Gibson City South Substation. Attached hereto as Exhibit A is an
4 AmerenCIPS drawing depicting the primary route for the proposed line and two
5 alternate routes. Also attached hereto are legal descriptions of the primary and
6 alternate routes. The legal description for the primary route is marked Exhibit
7 No. 2.A.1, the legal description for the first alternate route is marked Exhibit
8 No. 2.A.2, and the legal description for the second alternate route is marked Exhibit
9 No. 2.A.3.

10 **Q7. If there is a conflict or discrepancy between the routes indicated on Exhibit A**
11 **and the legal descriptions contained in Exhibit Nos. 2.A.1, 2.A.2 and 2.A.3,**
12 **which of the Exhibits should be considered correct?**

13 A7. Exhibit A should be considered the correct description of the primary and alternate
14 routes.

15 **Q8. Please describe the basic design characteristics of the proposed line?**

16 A8. The proposed line will be a 138 kV, three phase, multigrounded, overhead,
17 transmission line that is approximately 17 miles in length. The type of pole
18 structures to be installed to support the line will be single shaft steel or wood poles.
19 The typical pole height will be approximately 85 feet above ground. The average
20 span length will be approximately 600 feet, with a maximum span of approximately
21 675 feet. Each conductor will be 636.0 KCM equivalent T-2 Linnet ACSR, and the

1 shield wire will be either 3/8" 7 std. E.H.S. or 3/8" 7 std. E.H.S. equivalent fiber
2 optic ground wire. Fiber optic shield wire may be required for substation
3 communication purposes. The insulators will be braced polymer post. In areas
4 where there is also a lower voltage distribution circuit, "skip pole" construction will
5 be used. Skip pole construction uses shorter poles between the transmission poles to
6 provide the additional support needed for the distribution circuit. All proposed new
7 transmission line angle structures will be designed with concrete foundations, thus
8 eliminating guy wires and anchors.

9 **Q9. Will construction of the proposed line comply in all respects with**
10 **83 Administrative Code, Part 305, of the Illinois Commerce Commission?**

11 A9. Yes.

12 **Q10. Will construction of the proposed line impact the use of any airports, restricted**
13 **landing areas, or heliports within five miles of the proposed routes?**

14 A10. No.

15 **Q11. Will there be any above ground fixtures located on agricultural land other than**
16 **support structures, conductors, guys and anchors.**

17 A11. No

1 **Q12. Will AmerenCIPS try to place any guy wires and anchors along the right-of-**
2 **way lines or land division lines where possible?**

3 A12. Yes, if guys and anchors become necessary. However, all proposed new angle
4 structures are being designed with concrete foundations, thus eliminating the need
5 for guy wires and anchors.

6 **Q13. If the proposed line parallels public right-of-way, but is to be placed on private**
7 **land, how far from the edge of the right-of-way will the centerline of the support**
8 **structures be placed?**

9 A13. The centerline of the structures will typically be placed 3 to 4 feet from the edge of
10 the right-of-way. Because many of the roads are not straight, there may be locations
11 where structures will be placed a greater distance from the edge. However, we will
12 attempt to limit these locations in our design.

13 **Q14. What is the estimated cost of the proposed line?**

14 A14. AmerenCIPS' total estimated cost for constructing the proposed line is \$5,655,000.

15 **Q15. How will the construction of the proposed line be financed?**

16 A15. The proposed line construction cost will be financed internally.

17 **Q16. When does AmerenCIPS anticipate starting construction of the proposed line**
18 **and when will construction of the proposed line be completed?**

19 A16. AmerenCIPS plans to start construction of the proposed line in March 2003 with an
20 estimated completion date of June 2004.

1 **Q17. In Exhibit A, one primary route for the proposed line is shown along with two**
2 **alternate routes. What are the advantages and disadvantages associated with**
3 **the primary and alternate routes?**

4 A17. The primary route for the proposed line, shown in Exhibit A, was chosen because it
5 has one of the lowest costs for construction. Moreover, the primary route will affect
6 the fewest number of property owners and maintain a greater distance away from
7 restricted aviation landing areas than will the other alternate routes. The primary
8 route also impacts less agricultural land and is located along roadways, which will
9 provide the best access for construction and future maintenance.

10 The first alternate route, also shown in Exhibit A, is the shortest in length. It
11 also has one of the lowest construction costs and affects a fewer number of occupied
12 residences within 200 feet of its centerline than the primary route. However, the first
13 alternate route, in general, has poor accessibility for construction and future line
14 maintenance and has the longest section of line between access points. This
15 inaccessibility will likely result in longer outage response times and increased long-
16 term maintenance expenses.

17 The second alternate route, also shown in Exhibit A, is the least attractive of
18 the proposed routes. Even though the route follows an existing AmerenCIPS 138 kV
19 line, which would reduce the amount of additional right-of-way that would need to
20 be acquired, it will cost approximately 50% more to construct than the other
21 proposed routes. Constructing the proposed line along the existing 138 kV line also

1 would provide a limited work area during construction. Moreover, this route has
2 poor accessibility for construction and future line maintenance. This route, however,
3 does have fewer occupied houses within 200 feet of the centerline than the other
4 routes.

5 **Q18. Has a document been prepared that provides basic route information for all of**
6 **the proposed routes?**

7 A18. Yes. Attached hereto as Exhibit No. 2.1 is a set of data sheets that provide basic
8 information on the primary and alternate routes for the proposed line.

9 **Q19. Will the primary route identified on Exhibit A be in close proximity to any**
10 **foreign company facilities?**

11 A19. Yes. Attached hereto as Exhibit B is an AmerenCIPS drawing depicting the
12 AmerenCIPS and foreign company facilities, which are involved with, or are located
13 in close proximity to the proposed 138 kV transmission line route. As indicated by
14 the legend in the lower left-hand corner of the drawing, the proposed and existing
15 AmerenCIPS facilities have been identified by an encircled letter. The legend also
16 includes an index of foreign facilities, which are also identified by an encircled
17 number.

18 **Q20. Is there any direct benefit to the residences in the area where the proposed line**
19 **will be built?**

20 A20. Yes. Many of the residences in the area where the proposed line will be built receive
21 electric service from AmerenCIPS. The electric service they receive is delivered and

1 supported by the AmerenCIPS transmission system. Construction of the proposed
2 line by AmerenCIPS in this area will reduce the likelihood of diminished reliability
3 while maintaining access to competitively priced generation.

4 **Q21. Will the proposed line be of benefit to the public and reasonably necessary to**
5 **the convenience thereof?**

6 A21. Yes, it will.

7 **Q22. Does this conclude your testimony?**

8 A22. Yes, it does.

Primary Route

The Petitioner proposes to construct, operate and maintain a 138KV multigrounded electric line from its Gibson City Substation located in the Northwest Quarter (NW1/4) of Section Fourteen (Sec. 14), Township Twenty-three North (23N), Range Seven East (R7E) of the Third Principal Meridian (3rd P.M.), Ford County, Illinois, extending Eastwardly through said section to the West line of Section Thirteen (13); **Thence** extending Northwardly along the West line of said Section Thirteen (13) and crossing State Route 9 to a point on the South One-Half (1/2) of Section Twelve (12); **Thence** extending Eastwardly through said South One-Half (1/2) and Northerly of State Route 9 to the East line of said Section Twelve (12); **Thence** extending Eastwardly and North of Illinois Route 9 through Sections Seven (7), Eight (8), Nine (9) Ten (10), Eleven (11) and Twelve (12) of Township Twenty-three North (23N), Range Eight East (R8E) to the East line of Said Section Twelve (12); **Thence** extending Eastwardly and North of Illinois Route 9 through Section Seven (7), Township Twenty-three North (23N) and Range Nine East (R9E) to a point in the Southeast Quarter of said Section Seven (7); **Thence** extending Northwardly along the East line of Said Section and West of Township Road 1300E to a point in the Northeast Quarter (1/4) thereof; **Thence** extending Eastwardly and South of Township Road 500N through Sections Eight (8), Nine(9), Ten (10), Eleven (11) and Twelve (12) to a point on the East line of said Section Twelve (12); **Thence** extending Eastwardly and South of Township Road 500N in Township Twenty-three North (23N), Range Ten East (R10E) through Sections Seven (7) and Eight (8), to a point in the Northwest Quarter (NW1/4) of Section Nine (9); **Thence** extending Southwardly along the West line of Said Section Nine (9) and East of Township Road 2000E to its Paxton Substation located in the Southwest Quarter of Said Section Nine (9), Township Twenty-three North (T23N), Range Ten East (T10E), of the Third Principal Meridian (3rd P.M.), Ford County, Illinois.

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First Alternate Route

The Petitioner proposes to construct, operate and maintain a 138KV multigrounded electric line from its Gibson City Substation located in the Northwest Quarter (NW1/4) of Section Fourteen (Sec. 14), Township Twenty-three North (23N), Range Seven East (R7E) of the Third Principal Meridian (3rd P.M.), Ford County, Illinois, extending Eastwardly through said section to the West line of Section Thirteen (13); **Thence** extending Northwardly along the West line of said Section Thirteen (13) and crossing State Route 9 to a point on the North line of the South One-Half (1/2) of Section Twelve (12) adjacent to the East Right of Way line of State Route 54; **Thence** extending Eastwardly through said South One-Half (1/2) and parallel with the North right of way line of State Route 9 to the East line of said Section Twelve (12); **Thence** extending Eastwardly and parallel with the North Right of Way line of Illinois Route 9 through Sections Seven (7), Eight (8), Nine (9) Ten (10), Eleven (11) and Twelve (12) of Township Twenty-three North (23N), Range Eight East (R8E) to the East line of Said Section Twelve (12); **Thence** extending Eastwardly along the North line of the South One-Half of Sections Seven (7), Eight (8), Nine (9), Ten (10), Eleven (11) and Twelve (12) in Township Twenty-three North (23N) and Range Nine East (R9E) to a point on the East line of said Section Twelve (12); **Thence** extending Eastwardly along the North line of the South One-half (1/2) of Section Seven (7), Township Twenty-three North (23N), Range Ten East (R10E) to a point on the West Right of Way line of FAI 57; **Thence** extending Northwardly along said West right of way line to the South line of the North One-Half (N1/2) of the North East One-Quarter (N1/4) of Said Section Seven (7); **Thence** extending Eastwardly along Said South line of the North One-Half (N1/2) of the Northeast One-Quarter (NE1/4) to the Southwest Corner of the Northwest One-Quarter of the Northeast One-Quarter (NW1/4,NE1/4) of Section Eight (8); **Thence** extending Southeastwardly to the Southwest Corner (SW Cor) of the Southeast Quarter (SE1/4) of the Northeast Quarter (NE1/4) of Said Section Eight (8); **Thence** extending Easterwardly along said South line of said Southeast Quarter of the Northeast Quarter (SE1/4NE1/4) to the East Right of Way line of Township Road 2000E as located in the North line of the Southwest Quarter (SW1/4) of Section Nine (9); **Thence** extending Southwardly through Said Section Nine (9) to its Paxton Substation located in the Southwest Quarter (SW1/4) of Said Section Nine (9), Township Twenty-three North (T23N), Range Ten East (T10E), of the Third Principal Meridian (3rd P.M.), Ford County, Illinois.

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Second Alternate Route

The Petitioner proposes to construct, operate and maintain a 138kV multigrounded electric line from its Paxton Substation located in the Southwest Quarter (SW1/4) of Section Nine (Sec. 9), Township Twenty-three North (T23N), Range Ten East (R10E) of the Third Principal Meridian (3rd P.M.), Ford County, Illinois, and extend northeastwardly approximately Two Hundred and Fifty Feet (250'); Thence northwardly to the South line of the Northeast Quarter (NE1/4) of the Northwest Quarter (NW1/4) of Section Eight (Sec. 8) in Township Twenty-three North (T23N), Range 10 East (R10E) of the Third Principal Meridian (3rd P.M.), Ford County, Illinois; Thence westwardly along the South line of the North Half (N1/2) of the Northwest Quarter (NW1/4) of the said Section and the South line of the North Half (N1/2) of the North Half (N1/2) of Section Seven (Sec. 7) in the said Township and Range, and along the South line of the North Half (N1/2) of the North Half (N1/2) of Sections Twelve and Eleven (Secs. 12 & 11) in Township Twenty-three North (T23N), Range Nine East (R9E) of the Third Principal Meridian (3rd P.M.), in the county aforesaid; Thence southwestwardly through Sections Ten, Nine and Sixteen (Secs. 10, 9 & 16) in the last mentioned Township and Range, to the Southwest Corner (SW Cor.) of the Northwest Quarter (NW1/4) of the said Section Sixteen (Sec. 16); Thence westwardly along the South line of the North Half (N1/2) of Sections Seventeen and Eighteen (Secs. 17 & 18) in the last mentioned Township and Range, and along the South line of the North Half (N1/2) of Sections Thirteen, Fourteen, Fifteen, Sixteen, Seventeen, and Eighteen (Secs. 13, 14, 15, 16, 17, & 18) in Township Twenty-three North (T23N), Range Eight East (R8E) of the Third Principal Meridian (3rd P.M.) in the County aforesaid and along the South line of the North Half (N1/2) of Section Thirteen (Sec. 13) in Township Twenty-three North (T23N), Range Seven East (R7E) of the Third Principal Meridian (3rd P.M.) in the County aforesaid, and along the South line of the East Half (E1/2) of the Northeast Quarter (NE1/4) of Section Fourteen (Sec. 14) in the last mentioned Township and Range; Thence northwestwardly across the West Half (W1/2) of the Northeast Quarter (NE1/4) of the last mentioned Section Fourteen (Sec. 14) to the Company's electrical substation located in the Northwest Quarter (NW1/4) of the said Section Fourteen (Sec. 14) South of Gibson City, Illinois.

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I.C.C. SECTION 8-406 HEARINGS
Project Construction & Cost Data
AmerenCIPS

EXHIBIT No. 2.1

Project: Paxton East - Gibson City South-2

Sheet No. 1 of 4

Location: Ford County, IL

Docket No. _____

Route Information	Primary Route	First Alternate Route	Second Alternate Route
1. Length of Proposed Line (miles):			
a) Average Span Length	600	650	550
b) Maximum Span Length	675	725	685
c) Average Height Above Ground	85	65	75
2. Estimated Project Cost:			
a) Cost of Proposed 138kV Line	\$4,155,000	\$3,360,000	\$6,385,000
b) Cost of Land and Right of Way	\$500,000	\$600,000	\$115,000
c) Cost of Proposed 138kV Termination Equipment	\$1,000,000	\$1,000,000	\$1,000,000
3. Right of Way Information (easement/fee):			
a) Total Number of Landowners	50	69	66
b) Total Number of Parcels	56	81	71
c) Parcels Signed	0	0	0
4. Other Utilities Within 500 Feet:			
a) Canadian Railroad	X	X	X
b) Exxon Mobil Pipeline	X	X	X
c) Northern Illinois Gas Company/NICOR	X	X	X
d) Ameritech	X	X	X
e) Illinois Power Company	X	X	X
f) AmerenCIPS	X	X	X
g) Eastern Illinois Co-op	X	X	X
h) City of Paxton	X	X	X
i) Marathon Ashland Petroleum LLC	X	X	X
j) Peoples Energy	X	X	X
k) Verizon/GTE	X	X	X
l) Williams Pipeline	X	X	X
m) Corban Communications, IN	X	X	X
n) McLeod USA	X	X	X
o) Illinois Valley Cellular	X	X	X
p) Norfolk & Southern Railroad	X	X	X
5. Type of Right of Way (miles):			
a) Public	0	0	0
b) Private Easement	17.4	16.6	16.3
c) Fee Simple	0	0	0
6. Width of Right of Way (feet):			
a) Total Width	80'	80'	100'
b) Distance from Centerline Easement to Edge of Easement	40'	40'	50'
c) Centerline of Easement is the Approximate Centerline of the Support Structure (yes/no)	Yes	Yes	Yes

I.C.C. SECTION 8-406 HEARINGS
Project Construction & Cost Data
AmerenCIPS

EXHIBIT No. 2.1

Project: Paxton East - Gibson City South-2

Sheet No. 2 of 4
Docket No. _____

Location: Ford County, IL

Route Information	Primary Route	First Alternate Route	Second Alternate Route
7. Present Land Use (acres): (Acquired by Easement)			
a) Cropland	84.5	154.4	188.9
b) Pasture	0	0	0
c) Timberland	0	0	0
d) Nonagricultural	6.1	6.6	8.7
e) Other	78.1	0	0
8. Present Land Use (acres): (To Be Acquired by Fee)			
a) Cropland	0	0	0
b) Pasture	0	0	0
c) Timberland	0	0	0
d) Other Agricultural	0	0	0
e) Nonagricultural	0	0	0
9. Direct Benefits of the Construction to the Farms in the Area of Land Used by the Utility.	See Direct Testimony of D. DeWeese and K. Shah		
10. Line Adjacent/Parallel To (miles):			
a) Railroad Right of Way	0	0	0
b) Road Right of Way	16.6	.8	0
c) Drainage Ditches	.7	1.2	0
d) Misc. Field & Property Div., etc.	.1	13.7	0
e) Utility Corridor	0	.9	16.3
11. Rivers and Other Waterways Crossed:			
a) _____ River	0	0	0
b) Other: The Big Four Creek	X	X	X
c) Other: Drummer Creek	X	X	X
d) Other: Wall Town Creek	X	X	X
e) Other: Dickerson Creek	X	X	X
12. Major Highways Crossed:			
a) Route Illinois 9	X	X	X
b) Route Illinois 47	X	X	X
c) Route FAI 57	X	X	X
d) Route U.S. 45	X	X	X
e) Route Illinois 115	X	X	X

I.C.C. SECTION 8-406 HEARINGS
Project Construction & Cost Data
AmerenCIPS

EXHIBIT No. 2.1

Project: Paxton East - Gibson City South-2

Sheet No. 3 of 4

Docket No. _____

Location: Ford County, IL

Route Information	Primary Route	First Alternate Route	Second Alternate Route

13. Structures Within 200 Feet of Centerline of Line:			
a1) Occupied Houses, Same Side of Road	10	0	0
a2) Occupied Houses, Across Road	26	8	0
b1) Unoccupied Houses, Same Side of Road	1	0	0
b2) Unoccupied Houses, Across Road	0	0	0
c1) Garage & Farm Buildings, Same Side	10	0	0
c2) Garage & Farm Buildings, Across Road	12	0	0
d1) Grain Bins, Same Side	0	0	0
d2) Grain Bins, Across Road	1	0	0
e1) Other, Same Side	0	0	0
e2) Other, Across Road	0	0	0
e3) Other Adjacent	10	14	4
e4) Occupied Houses & Bldgs Adjacent within 200'	0	0	4
14. Anticipated Location of Support Structures:			
a) Cropland	0	0	0
b) Pasture	0	0	0
c) Timberland	0	0	0
d) Other Agricultural	0	127	0
e) Public Right of Way	0	0	0
f) Along or Within Utilization Lines (e.g. Roads, Field Borders, Grassy Waterways, etc.)	151	8	150
g) Other: _____	3	0	0
15. State Parks and Conservation Areas:	0	0	0
a) Line Crosses Through	0	0	0
b) Adjacent to Line	0	0	0
c) Within 1 Mile of Line	0	0	0
d) 1 to 5 Miles of Line	0	0	0
e) Total of Above	0	0	0
16. Airports and Restricted Landing Areas:			
a) Adjacent to Line	0	0	0
b) Within 1 Mile of Line	0	0	0
c) 1 to 5 Miles from Line	3	3	3
d) Total of Above	3	3	3
17. The proposed construction will become a controlling obstruction to the use of the above airports as defined in FAA and State Regulations relative thereto (yes/no):	No	No	No
18. Designated "Flood Plain" Areas:			
a) Parallel to Line	0	0	0
b) Crossed by Line	1	1	1
c) Total of Above	1	1	1

I.C.C. SECTION 8-406 HEARINGS
Project Construction & Cost Data
AmerenCIPS

EXHIBIT No. 2.1

Project: Paxton East - Gibson City South-2

Sheet No. 4 of 4

Docket No. _____

Location: Ford County, IL

Route Information	Primary Route	First Alternate Route	Second Alternate Route
19. The proposed construction will cause interference with said "flood plain" areas (yes/no):	No	No	No
20. With reference to the above matters, Company has letters of transmittal to:			
a) Illinois Department of Transportation	Yes	No	No
b) Illinois Historic Preservation Agency	Yes	No	No
c) Illinois Department of Transportation Division of Aeronautics	Yes	No	No
d) Illinois Department of Natural Resources	Yes	No	No
e) Illinois Department of Agriculture	Yes	No	No
f) Federal Aviation Administration	Yes	No	No

08/29/01